

# NEVADA COMMISSION ON MINERAL RESOURCES Division of Minerals

The Nevada Division of Minerals, a part of the Commission on Mineral Resources, is responsible for administering programs and activities to promote, advance, and protect mining and the development and production of petroleum and geothermal resources in Nevada. The Division's mission is to conduct activities to further the responsible development and production of the State's mineral resources to benefit and promote the welfare of the people of Nevada. The seven-member Commission on Mineral Resources is a public body appointed by the Governor and directs mineral-related policy for the Division and advises the Governor and Legislature on matters relating to mineral resources. The Division focuses its efforts on three main areas: Industry relations and public affairs; regulation of oil, gas, and geothermal drilling activities and well operations; and abandoned mine lands.

The agency is involved in a wide array of activities relating to mineral development. Staff compiles annual data on all active mines in Nevada and maintains the State's mine registry. Information concerning mining operations and production is made available to the public through this yearly publication. Educational documents and materials concerning many aspects of the minerals industry are also produced. The Division participates in governmental activities affecting policies and laws concerning the minerals industry and resource development. The Division administers the State's reclamation bond pool.

The Division is responsible for permitting, inspecting, and monitoring all oil, gas, and geothermal drilling activities on both public and private lands in Nevada. Staff also monitors production of oil, gas, and geothermal resources to insure proper management and conservation. The Administrator is the Governor's Official Representative to the Interstate Oil and Gas Compact Commission.

The Division's abandoned mine lands program provides for public safety by identifying and ranking dangerous conditions at mines that are no longer operating, and by securing dangerous orphaned mine openings. The program continually urges the public to recognize and avoid hazardous abandoned mines.

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Front cover: Gold Quarry Mine (Newmont Gold Corp.), photo by Newmont.

# Nevada Bureau of Mines and Geology SPECIAL PUBLICATION P-11

# Major Mines of Nevada 1999

# Mineral Industries in Nevada's Economy

By Doug Driesner and Alan Coyner

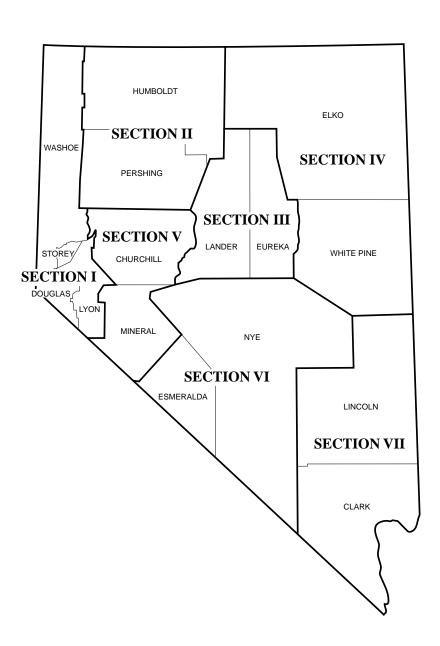
The Nevada Division of Minerals

## **2000**

This is the eleventh of an annual series of summary reports on major mines of Nevada. Sand and gravel operations are not included. Information on employment and production for the calendar year 1999 was provided by the individual mine operators. The Nevada Division of Minerals maintains a complete register of Nevada mines. For further information, contact them at 400 W. King, Suite 106, Carson City, Nevada 89703 or call (775) 687-5050, or visit their Web site at www.state.nv.us/minerals.

MACKAY SCHOOL OF MINES





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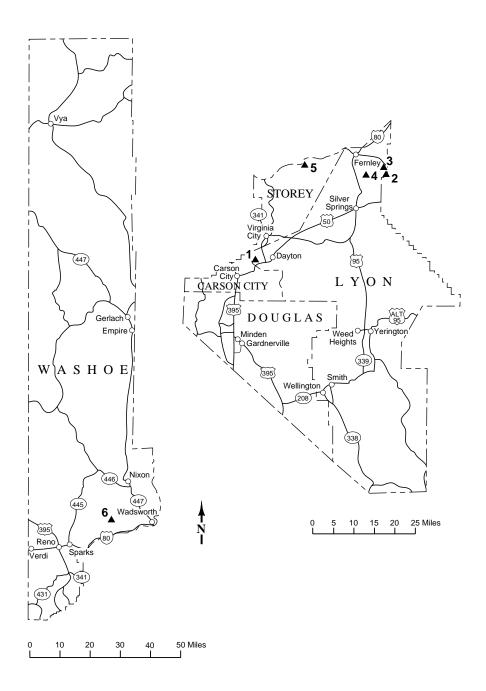
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## Section I

## **Lyon County**

## **Adams Claim Gypsum Mine (1)**

Operator:

Art Wilson Co. P.O. Box 20160 Carson City, NV 89721 775-882-0700 Fax: 882-0790 Company employees: 7

Production:

Gypsum - 145,447 tons

#### **CR Minerals Mine (2)**

Operator:

CR Minerals Corp.
P.O. Box 858
Fernley, NV 89408
775-575-2536 Fax: 575-4857
Company employees: 18
Production:

## Hazen Pit (3)

Diatomite

Operator:

Eagle-Picher Minerals, Inc. P.O. Box 10408 Reno, NV 89510 775-824-7700 Fax: 824-7715

Production: Diatomite

## **NCC Limestone Quarry (4)**

Operator:

Nevada Cement Co. P.O. Box 840 Fernley, NV 89408 775-575-2281 Fax: 575-4387 Company employees: 130

Production:

Limestone/Clay

## **Storey County**

#### **Clark Mine and Mill (5)**

Operator:

Eagle-Picher Minerals, Inc. P.O. Box 10408 Reno, NV 89510 775-824-7700 Fax: 824-7715 Company employees: 74

Production:

Diatomite

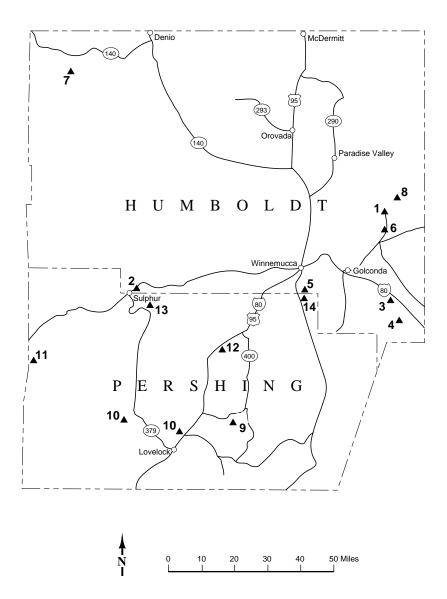
## **Washoe County**

## Olinghouse Mine (6)

Operator:

Alta Gold Co. 1525 E. Newlands Dr. #1 Fernley, NV 89408 775-575-0583 Fax: 575-0617 Company employees: 23 Production:

Gold - 28,655 oz Silver - 17,598 oz



## Section II

## **Humboldt County**

# Getchell and Turquoise Ridge Mines (1)

Operator:

Getchell Gold Corp.

P.O. Box 220

Golconda, NV 89414

775-529-5001 Fax: 529-0752

Company employees: 314

Production:

Gold - 111,000 oz

### Hycroft Mine (2)

Operator:

Hycroft Resources & Dev., Inc.

P.O. Box 3030

Winnemucca, NV 89446

775-623-5260 Fax: 623-0215

Company employees: 35

Production:

Gold - 40,075 oz Silver - 183.190 oz

Mercury - 17.9 tons

Lone Tree Mine (3)

Operator:

Newmont Mining Corp.

P.O. Box 388

Valmy, NV 89438

775-635-9000 Fax: 635-0111

Company employees: 351

Production (includes Trenton Canyon):

Gold - 240.091 oz

Silver - 34,357 oz

#### **Marigold Mine (4)**

Operator:

Rayrock Mines, Inc.

P.O. Box 9

Valmy, NV 89438

775-623-9571 Fax: 635-2551

Company employees: 88

Production:

Gold - 74,000 oz

### MIN-AD Mine and Mill (5)

Operator:

MIN-AD, Inc.

4210 W. Jungo Road

Winnemucca, NV 89445

775-623-5944 Fax: 623-9028

Company employees: 15

Contract employees: 6

Production:

Dolomite - 64.151 tons

## Pinson Mine (6)

Operator:

Pinson Mining Co.

P.O. Box 129

Winnemucca, NV 89446

775-529-5026 Fax: 529-5030

Company employees: 13

Production:

Gold - 11,975 oz

Silver - 442 oz

## **Royal Peacock Opal Mine (7)**

Operator:

Walter Wilson

1 Homestead Road P.O. 144

Orovada, NV 89425

775-941-0374

Production:

Precious opal

#### Twin Creeks Mine (8)

Operator:

Newmont Mining Corp.

P.O. Box 69

Golconda, NV 89414

775-623-4300 Fax: 635-4602

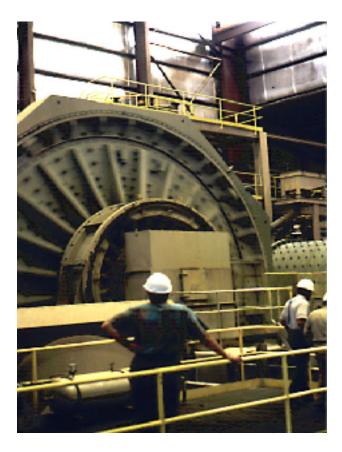
Company employees: 721

Contract employees: 60

Production:

Gold - 610,728 oz

Silver - 110,448 oz



Lone Tree mill (Newmont Mining Corp.), photo by Nevada Division of Minerals

## **Pershing County**

## **Coeur Rochester Mine (9)**

Operator:

Coeur DÕAlene Mines Corp. P.O. Box 1057 Lovelock, NV 89419 775-273-7995 Fax: 273-7423 Company employees: 238

Production:

Gold - 70,396 oz Silver - 6,195,169 oz

## **Colado Mine and Plant (10)**

Operator:

Eagle-Picher Minerals, Inc. 150 Coal Canyon Road Lovelock, NV 89419 775-824-7540 Fax: 824-7582 Company employees: 140

Production:

Diatomite, Perlite

#### Empire Mine (11)

Operator:

United States Gypsum Co. P.O. Box 130 Empire, NV 89405

775-557-2341 Fax: 557-2212

Company employees: 146

Production:

**Gypsum - 582,439 tons** 

## Florida Canyon Mine (12)

Operator:

Florida Canyon Mining, Inc. P.O. Box 330

Imlay, NV 89418

775-538-7300 Fax: 538-7324

Company employees: 170 Contract employees: 22

Production:

Gold - 139,590 oz Silver - 1 11,232 oz

## **Rosebud Mine (13)**

Operator:

Hecla Mining Co. P.O. Box 2610 Winnemucca, NV 89446 775-623-6912 Fax: 623-6967

> Company employees: 93 Contract employees: 2

Production:

Gold - 1 12,652 oz Silver - 247,900 oz

## W. Glen Sexton Family Trust (14)

Operator:

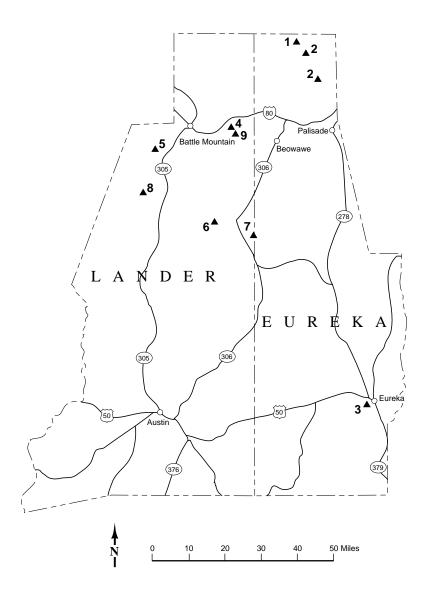
Nutritional Additives Corp. 415 Wellington Street Winnemucca, NV 89445 775-623-1151 Fax: 623-1 153 Company employees: 8

Production:

**Dolomite** 



Blast at Twin Creeks Mine (Newmont Mining Corp.), photo by Nevada Division of Minerals



## Section III

## **Eureka County**

#### **Betze-Post Mine (1)**

Operator:

Barrick Goldstrike Mines, Inc. P.O. Box 29

Elko, NV 89803

775-778-8191 Fax: 738-6543 Company employees: 1,302 Contract employees: 290

Production:

Gold - 1,130,094 oz Silver - 65,804 oz

## **Carlin Operations (2)**

Operator:

Newmont Mining Corp. P.O. Box 669 Carlin, NV 89822 775-778-4000 Fax: 778-4757

Company employees: 1,400

Production:

Gold - 1,365,866 oz Silver - 222,090 oz

#### **Ruby Hill Mine (3)**

Operator:

Homestake Mining Co. P.O. Box 676 Eureka, NV 89316 775-237-6060 Fax: 237-5408 Company employees: 92 Contract employees: 6

Production:

Gold - 123,841 oz Silver - 7.688 oz



Gold Quarry Mine (Newmont Mining Corp.), photo by Nevada Division of Minerals

## **Lander County**

#### **Argenta Mine and Mill (4)**

Operator:

Baker Hughes INTEQ P.O. Box 277 Battle Mountain, NV 89820 775-635-5441

Company employees: 18

Shipped:

Barite - 48,153 tons

#### **Battle Mountain Complex (5)**

Operator:

Battle Mountain Gold Co. P.O. Box 1627 Battle Mountain, NV 89820 775-635-2465 Fax: 635-8677 Company employees: 22 Contract employees: 1

Production:

Gold - 8,322 oz Silver - 19,526 oz

# **Battle Mountain Grinding Plant** (Greystone Mine) (6)

Operator:

M-I L.L.C.
P.O. Box 370
Battle Mountain, NV 89820
775-635-5135 Fax: 635-2191
Company employees: 60
Shipped:

Barite - 218,469 tons

#### **Cortez Gold Mines (7)**

Operator:

Placer Dome U.S. Inc. HC66-50 Beowawe, NV 89821 775-468-4400 Fax: 468-4496

Company employees: 400 Contract employees: 2

Production:

Gold - 1,328,525 oz

## McCoy/Cove Mine (8)

Operator:

Echo Bay Minerals Co. P.O. Box 1658 Battle Mountain, NV 89820 775-635-5500 Fax: 635-5098 Company employees: 280

Production:

Gold - 124,500 oz Silver - 8,430,000 oz

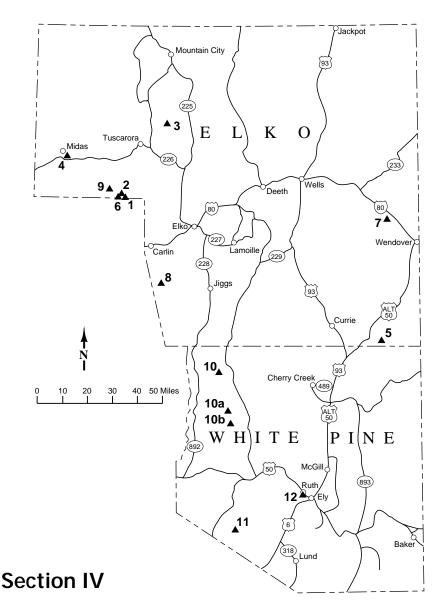
## Mule Canyon (9)

Operator:

Newmont Mining Corp.
P.O. Box 338
Valmy, NV 89438
775-635-9000 Fax: 635-0111
Company employees:
included with Lone
Tree Mine

Production:

Gold - 55,392 oz Silver - 10,022 oz

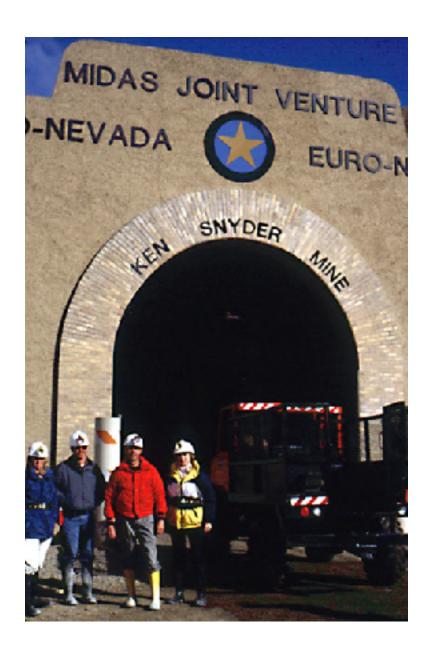


## **Elko County**

Capstone/Bootstrap Mine (1)
Operator: Newmont Mining Corp.
P.O. Box 669
Carlin, NV 89822
775-778-4000 Fax: 778-4757
Employees: included with
Carlin Operations

Production: Gold - 147,088 oz Silver - 28,395 oz Dee Gold Mine (2)

Operator: Glamis Gold, Inc.
P.O. Box 160
Valmy, NV 89438
775-635-8810 Fax: 635-8858
Company employees: 50
Contract employees: 20
Production: Gold - 36,329 oz
Silver - 68,400 oz



Ken Snyder Mine (Dynatec Mining Corp.), photo by Nevada Division of Minerals

#### Jerritt Canyon Mine (3)

Operator:

Anglo Gold (Jerritt Canyon) Corp. HC31 Box 78 Elko, NV 89801 775-738-5006 Fax: 758-5453 Company employees: 407

Production: Gold - 363,000 oz

#### Ken Snyder Mine (4)

Operator: Dynatec Mining Corp. HC 66 Box 105 Midas, NV 89414-9801 775-529-0611 Fax: 529-0612 Company employees: 170 Contract employees: 11

Production:

Gold - 182,345 oz Silver - 1,860,701 oz

#### **Kinsley Mountain Mine (5)**

Operator: Alta Gold Co. 778 Great Basin Blvd. Ely, NV 89301 775-289-3007 Fax: 289-4138 Company employees: 8 Production: Gold - 1,543 oz

Meikle Mine (6)

Operator: Barrick Goldstrike Mines, Inc. P.O. Box 29 Elko, NV 89803 775-778-8191 Fax: 738-6543 Company employees: 340 Contract employees: 100 Production: Gold - 977,356 oz Silver - 263,225 oz

### Pilot Peak Lime Plant (7)

Operator: Continental Lime Inc. P.O. Box 2520 West Wendover, NV 89883 775-483-5463 Fax: 483-5149 Company employees: 50

Production: Lime

#### Rain Mine (8)

Operator: Newmont Mining Corp. P.O. Box 669 Carlin, NV 89822 775-778-4000 Fax: 778-4757 Employees: included with Carlin Operations

Production: Gold - 23,447 oz Silver - 4.526 oz

## Rossi Mine-Dunphy Mill (9)

Operator: BAROID (Halliburton Energy Services, Inc.) 912 Dunphy Ranch Rd. Battle Mountain, NV 89820 775-468-0515 Fax: 468-2060 Company employee: 1

Contract employees: 44 Shipped: Barite - 89,402 tons

## **White Pine County**

## **Bald Mountain Mine (10)**

Operator: Placer Dome U.S. Inc. P.O. Box 2706 Elko, NV 89803 775-744-4227 Fax: 744-4216 Company employees: 158

Production (includes Casino/Winrock, Little Bald Mountain, Alligator Ridge [10a], and Yankee [10b]):

Gold - 105,475 oz, Silver - 18,058 oz

#### Griffon Mine (11)

Operator: Alta Gold Co. 778 Great Basin Blvd. Elv. NV 89301 775-289-3007 Fax: 289-4138 Company employees: 7 Production: Gold - 24,740 oz

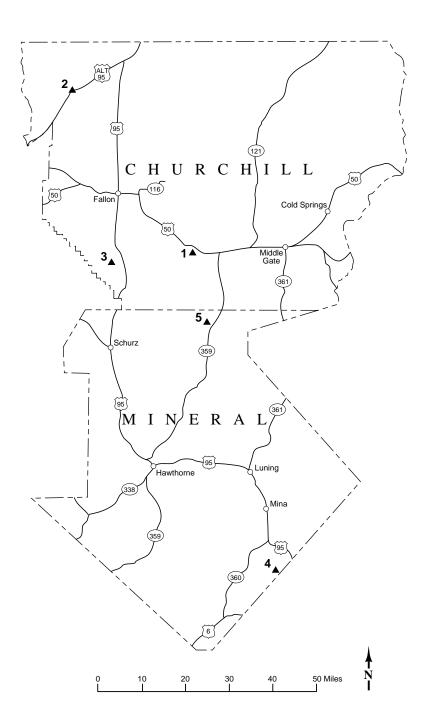
#### Robinson Mine (12)

Operator:

BHP Nevada Mining Co. P.O. Box 382 Ruth, NV 89319 775-289-7214 Fax: 289-7103 Company employees: 440 Production:

> Concentrate containing: Copper - 61,755,000 pounds

Gold - 26.250 oz Silver - 153,104 oz



## Section V

## **Churchill County**

#### **Huck Salt (1)**

Operator:

Huck Salt & Sons, Inc. 5033 Austin Hwy. Fallon, NV 89406

775-423-2055 Fax: 423-0467 Company employees: 4

Production:

Salt - 15.355 tons

## Moltan Company/Fernley Nevada Facility (2)

Operator:

Moltan Company P.O. Box 860 Fernley, NV 89408 775-423-6668 Fax: 423-6411 Company employees: 51

Production:

Diatomite

## **Popcorn Perlite Mine (3)**

Operator:

Eagle-Picher Minerals, Inc. P.O. Box 10408 Reno, NV 89510 775-824-7700 Fax: 824-7633

Production:

Perlite

## **Mineral County**

#### **Candelaria Mine (4)**

Operator:

Kinross Candelaria Mining Co. P.O. Box 1240 Hawthorne, NV 89415 775-573-2471 Fax: 573-2520

Company employees: 2 Contract employees: 2

Production:

Silver - 96,896 oz Gold - 237 oz

#### **Denton-Rawhide Mine (5)**

Operator:

Kennecott Rawhide Mining Co. P.O. Box 2070 Fallon, NV 89407 775-945-1015 Fax: 945-1213

Company employees: 180 Contract employees: 4

Production:

Gold - 115,900 oz Silver - 665,000 oz

## **Section VI**

## **Esmeralda County**

#### **Basalt Mine and Mill (1)**

Operator:

Grefco Minerals, Inc.

P.O. Box 288

Mina, NV 89422

Dicalite Toll Station #1

Fax: 760-872-6006

Company employees: 5

Production:

Diatomite

#### **Mineral Ridge Mine (2)**

Operator:

Mineral Ridge Resources, Inc.

P.O. Box 67

Silver Peak, NV 89047

775-937-2266 Fax: 937-2202

Company employees: 90 Contract employees: 2

Production:

Gold - 27,145 oz

Silver - 19,915 oz

## **Silver Peak Operations (3)**

Operator:

Chemetall Foote Corp.

P.O. Box 98

Silver Peak, NV 89047

775-937-2222 Fax: 937-2250

Company employees: 68

**Contract employees: 8** 

Production:

Lithium compounds

## **Nye County**

### **Bullfrog Mine (4)**

Operator:

Barrick Bullfrog, Inc.

P.O. Box 519

Beatty, NV 89003

775-553-2900 Fax: 553-2963

Company employees: 52

Production:

Gold - 76,159 oz

Silver - 90,967 oz

### **Daisy Gold Mine (5)**

Operator:

Glamis Daisy Mining Co.

P.O. Box 190

**Beatty, NV 89003** 

775-553-2234 Fax: 553-2295

Company employees: 6

Contract employees: 37

Production:

Gold - 30.660 oz

#### **IMV Nevada (6)**

Operator:

Mud Camp Mining Co. LLC

dba IMV Nevada

Route Box 549

Amargosa Valley, NV 89020

775-372-5341 Fax: 372-5640 Company employees: 31

Production:

Specialty clays - 31,142 tons

## **New Discovery Mine and Mill (7)**

Operator:

Vanderbilt Minerals Corp.

2320 Viking Road

Las Vegas, NV 89109

702-732-3174 Fax: 731-3621

Company employees: 6

Production:

Specialty clay - 374 tons

#### **Premier Chemical (8)**

Operator:

Vesuvius

P.O. Box 177

Gabbs, NV 89409

775-285-2601 Fax: 285-4021

Company employees: 79

Production:

Magnesium oxide

# **Smoky Valley Common Operation (9)**

Operator:

Round Mountain Gold Corp. P.O. Box 480 Round Mountain, NV 89045-0480 775-377-2366 Fax: 377-3240 Company employees: 673

Production:

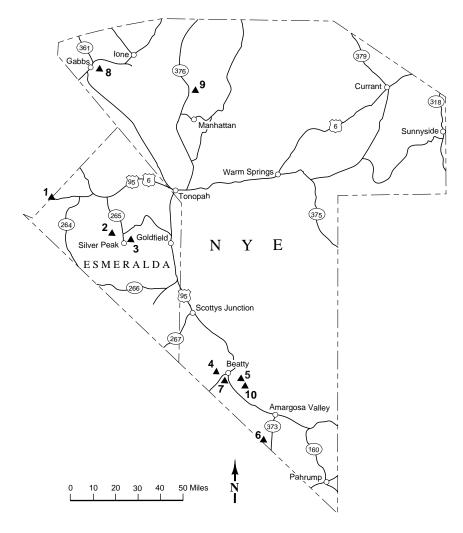
Gold - 541,808 oz Silver - 464,415 oz

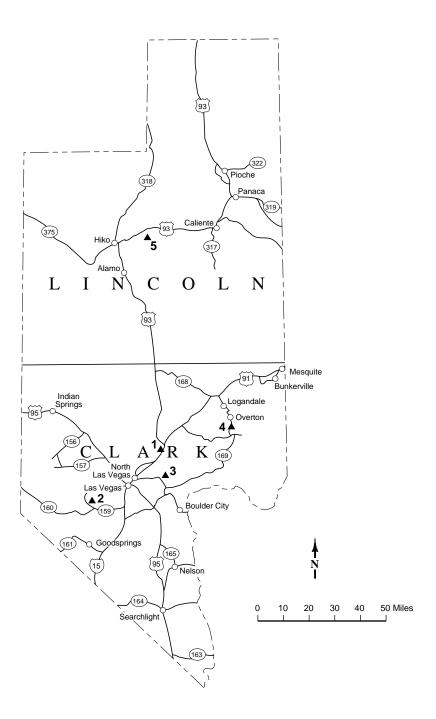
## **Sterling Mine (10)**

Operator:

Imperial Minerals
P.O. Box 549
Beatty, NV 89003
775-222-4844 Fax: 372-1720
Company employees: 12
Production:

Gold - 3,093 oz





## **Section VII**

## **Clark County**

## **Apex Quarry and Plant (1)**

Operator:

Chemical Lime Co. P.O. Box 3609 North Las Vegas, NV 89036 702-643-7702 Fax: 643-9517 Company employees: 60

Production:

Limestone, Lime

### James Hardie Gypsum (2)

Operator:

James Hardie Gypsum HCR 89033, Box 2900 Las Vegas, NV 89124 702-875-4111 Fax: 875-4213 Company employees: 121 Production:

Gypsum - 769,881 tons

## PABCO Gypsum (3)

Operator:

Pacific Coast Building Products, Inc. 1973 N. Nellis Blvd. #328 Las Vegas, NV 89115 702-643-1016 Fax: 643-6249 Company employees: 80 Contract employees: 3

Production:

Gypsum - 584,872 tons

## **Simplot Silica Products (4)**

Operator:

Simplot Industries P.O. Box 308 Overton, NV 89040 702-397-2667 Fax: 397-2798 Company employees: 44

Production:

Silica sand - 677,000 tons

## **Lincoln County**

#### **Mackie Perlite Mine (5)**

Operator:

Wilkin Mining & Trucking, Inc. P.O. Box 829 Panaca, NV 89042 775-728-4463 Fax: 728-4456 Company employees: 10

Production:

Perlite

## **SUMMARY OF 1999 PRODUCTION**

Gold Silver Barite (shipped) Copper Diatomite	8,261,000 19,470,000 357,000 61,755,000 **	ounces * ounces * tons pounds
Dolomite	**	
Gypsum Limestone	2,600,000	tons
Lithium carbonate	**	
Magnesium oxide	**	
Mercury	**	
Perlite	**	
Precious opal	**	
Salt	15,355	tons
Silica sand	677,000	tons
Specialty clay	35,000	tons

<sup>\*</sup>Includes production from smaller mines not listed in this report.

<sup>\*\*</sup>Proprietary information.

## Economic Impacts of Mining in Nevada—1999

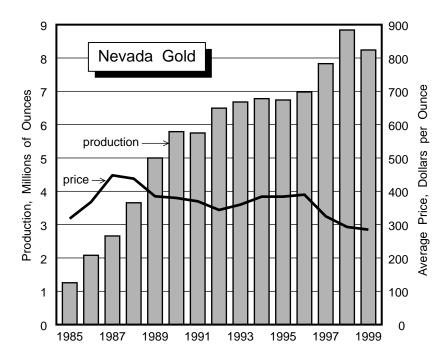
The Nevada mineral industry led the nation in 1999 in the production of gold, silver, and barite as it has for several years. Nevada also produced a wide variety of other mineral and energy commodities such as aggregates, clays, copper, diatomite, dolomite, geothermal energy, gypsum, lapidary and gem stones, lime and limestone, lithium compounds, magnesium compounds, oil, perlite, salt, silica, and specialty aggregates. The total value of Nevada's mineral production in 1999 was about \$2.7 billion (not including oil and geothermal energy), down from the 1998 level of \$3.2 billion. In terms of dollar value, the bulk of Nevada's mineral production is due to precious metal mining. The drop in value from 1998 to 1999 is a result of both lower gold production and declining gold prices.

## **Production Highlights**

Nevada's gold production was 8,261,000 troy ounces in 1999, the second year in a row above the 8 million ounce mark. This was down from the 1998 record level of

8,865,000 troy ounces. Nevada is the third largest producer of gold in the world, behind only South Africa and Australia. Silver production was 19,470,000 troy ounces in 1999, down from 21,519,000 troy ounces in 1998. In spite of the drop in silver production, Nevada's nickname of the "Silver State" is still appropriate. Copper production was 61.8 million pounds, down from the 148.5 million pounds produced in 1998, due to the suspension of mining at the BHP Robinson Mine in mid-1999. Gypsum production increased significantly to 2.6 million tons in 1999, up from 2.0 million tons produced in 1998.

The decrease in gold production of about 600,000 ounces in 1999 compared to 1998 came from lower production at open pit operations. Underground operations produced 1.97 million ounces of gold in 1999, virtually unchanged from 1998. Underground operations produced nearly 24% of Nevada's total gold in 1999, up from 22% in 1998. Over three-fourths of the underground gold production came from operations in Elko County.



#### **Employment**

According to the Nevada Department of Employment, Training, and Rehabilitation, the Nevada mining industry employed approximately 12,360 employees for the last quarter of 1998 and the first three quarters of 1999, the latest year-long period for which employment figures are available. The total payroll for that period was \$667,901,986, making \$54,037 the average pay for mine workers, the highest average of any employment sector in the state. In addition, it is estimated that there are over 40.000 indirect jobs in the state related to providing goods and services needed by the mining industry. Mining employment dropped for the second year in a row due primarily to lower commodity prices and a slowdown in new mine development, particularly in the precious metals sector.

## **Taxes and Other Impacts**

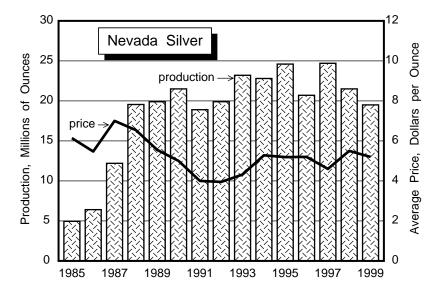
The taxes paid by the mining industry to state and local government include property taxes, sales and use tax, and unique to the minerals industry, net proceeds of mines tax. Based on information from the Nevada Department of Taxation, the property taxes paid by the mining industry in 1999 totaled \$26,372,367. Sales and use taxes paid are calculated to be \$13,716,335, based on

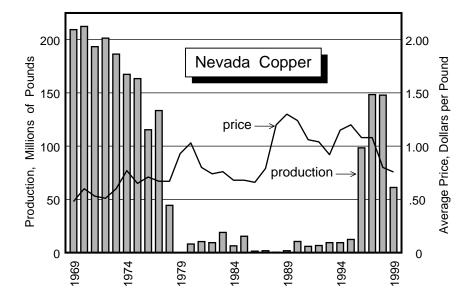
\$211,020,538 in sales multiplied by an average rate of 6.5%. Net proceeds of mines taxes paid in 1999 were \$24,588,728. The grand total of these three taxes is \$64,677,430.

While the economic impact of mining is important to the state as a whole, the greatest impacts are felt by the local communities near the mines. Towns such as Elko, Winnemucca, and Eureka have much healthier economies than they would otherwise because of the high paying jobs, taxes, and contributions provided by the mining industry.

#### **Permitting and Reclamation**

Before mining can take place, plans of operation must be submitted and permits must be obtained from federal and state agencies to ensure that other resources such as wildlife, air, and water are protected. Nevada and federal laws and regulations require that lands disturbed by mining activities must be rehabilitated so they can be used for other purposes once mining is completed. This process, called reclamation, returns mined areas to other productive uses such as wildlife habitat, livestock grazing, or new industrial applications. To ensure that reclamation is done, mine operators are required to post reclamation bonds that are held by government agencies. The bonds are released only after





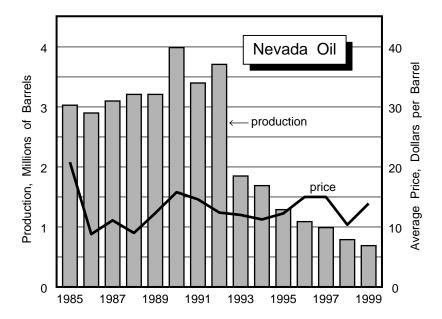
the area is stabilized and the reclamation goals have been met. Over \$447 million in reclamation bonds are currently posted. Mine operators are proud of their efforts and are constantly seeking ways to enhance their reclamation technology.

#### **Gold Reserves**

Nevada's reported gold reserves at or near currently operating mines that can be mined at a profit under current economic conditions stood at about 87 million ounces at the end of 1999. The amount of reserves is always in a state of flux, with some reserves being lost to production, additional discoveries being made, and changing economic conditions. These reserves are down only one million ounces from the reported reserves in 1998 of 88 million ounces. This is a remarkable achievement considering that over eight million ounces were produced in 1999 and that the average gold price dropped from \$294 per ounce in 1998 to \$279 in 1999. Many Nevada operations are able to add to their reserves each year through development drilling. Extensive gold resources, not currently economic, also exist at many operations. The price of gold and the cost of production are the main factors used to determine whether a reserve is really a reserve or just a sub-economic resource. With the price of gold steadily dropping for three years, many companies have had to reevaluate their reserves and reclassify some as resources. An increase in the cost of regulatory compliance has the same effect as a lowering of the gold price, thus increasingly complex and expensive regulations can reduce reserves. Under current conditions, the existing proven reserves are sufficient to sustain gold production at current levels for about 10 years.

#### **Exploration**

Exploration for new deposits, particularly gold, is an ongoing effort by the producing companies and many others who do not operate mines in the state. Each year, the Division of Minerals conducts an exploration survey to determine the level of exploration activity and the factors that are responsible for those levels. All of the results for 1999 have not been received as yet, but the preliminary indications are that dollars spent on exploration in 1999 were slightly less than the \$87 million spent in 1998. The number of exploration geologists employed is also expected to drop slightly from 1998 levels. These geologists, together with their support staff of drillers, samplers, assayers, and others represent a significant positive economic impact, particularly in Nevada's rural areas.



## Minerals Other Than Gold and Silver

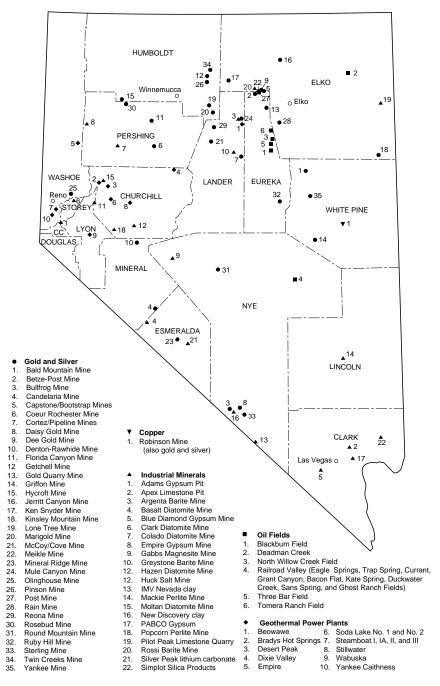
Minerals besides gold and silver are also important to Nevada's economy. Copper and industrial minerals such as barite, diatomite, gypsum, limestone, lithium compounds, magnesite, and specialty clays are mined in the state. Sand, gravel, and crushed stone are critical to the building requirements of the state's infrastructure.

gas exploration and Oil and production in Nevada is a small industry when compared to mining, but it is important to the economy of east-central Nevada. In oil field terms, Nevada is considered a frontier, meaning its potential has vet to be realized. Oil production in 1999 was about 706,000 barrels (42 gallons per barrel) with an average value of about \$13.87 per barrel for a total calculated value of about \$9.8 million. Nevada oil is used for the production of kerosene, diesel, boiler fuel, and asphalt. No natural gas is commercially produced in the state, but minor amounts of gas produced from some wells are used to fuel onsite equipment.

Nevada is rich in geothermal resources. Currently, there are 14 plants at 10 locations that produced a net of approximately 1.3 million megawatt hours of electricity, which is enough to power about 100,000 typical homes. Geothermal heat is also used for a variety of commercial, domestic, and public applications in Nevada. Mining, aquaculture, and agriculture are among the beneficiaries of geothermal heat. Schools in Elko County, and homes and commercial buildings in Lincoln and Washoe Counties are examples of public and private facilities using this renewable energy resource.

#### Conclusion

Nevada's mineral industry continued to be a major economic force in the state during 1999. This situation should continue for many years to come. Challenges will exist, as they always have, but Nevada's mineral reserves and the potential to add to them will spur the creativity of the mineral industry. During the past years of relatively low commodity prices, many mineral producers have found ways to reduce their production costs. They will be well positioned to take advantage of increased margins when commodity prices rebound.



Major mines, oil fields, and geothermal plants, 1999.

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## The Nevada Bureau of Mines and Geology

The Nevada Bureau of Mines and Geology (NBMG) is a research and public service unit of the University of Nevada and is the state geological survey. NBMG is part of the Mackay School of Mines at the University of Nevada, Reno. NBMG scientists conduct research and publish reports on mineral resources, engineering geology, environmental geology, hydrogeology, and geologic mapping. Individuals interested in Nevada geology are encouraged to visit, call, or write NBMG or visit our homepage at www.nbmg.unr.edu.

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